

K Inverse Pairs Array [\(View\)](#)

For an integer array `nums`, an **inverse pair** is a pair of integers `[i, j]` where $0 \leq i < j < \text{nums.length}$ and `nums[i] > nums[j]`.

Given two integers `n` and `k`, return the number of different arrays consist of numbers from `1` to `n` such that there are exactly `k` **inverse pairs**. Since the answer can be huge, return it **modulo** $10^9 + 7$.

Example 1:

Input: `n = 3, k = 0`

Output: `1`

Explanation: Only the array `[1,2,3]` which consists of numbers from `1` to `3` has exactly `0` inverse pairs.

Example 2:

Input: `n = 3, k = 1`

Output: `2`

Explanation: The array `[1,3,2]` and `[2,1,3]` have exactly `1` inverse pair.

Constraints:

- `1 ≤ n ≤ 1000`
- `0 ≤ k ≤ 1000`